ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

MONTH XX, 2020

Amanda Bader
County Solid Waste Director
Cumberland County
698 Ann Street
Fayetteville, North Carolina 28301

SUBJECT: Air Quality Permit No. 08846T10
Facility ID: 2600161
Cumberland Co – Ann Street Landfill
Fayetteville, North Carolina
Cumberland County
Fee Class: Title V
PSD Class: Minor

Dear Ms. Bader:

In accordance with your completed Air Quality Permit Application for a Significant Modification of your Title V permit received November 29, 2017, we are forwarding herewith Air Quality Permit No. 08846T10 to the Cumberland Co – Ann Street Landfill, located at 698 Ann Street, Fayetteville, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Cumberland County has triggered increment tracking under PSD for PM_{10} and SO_2. This modification will result in a decrease of 1.18 pounds per hour for PM_{10}.

This Air Quality Permit shall be effective from MONTH XX, 2020 until December 31, 2021, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Joshua Harris at joshua.harris@ncdenr.gov or (919) 707-8461

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Kelly Fortin, EPA Region 4 (with review)
Fayetteville Regional Office
Central Files
Connie Horne (cover letter only)

ATTACHMENT to Permit No. 08846T10

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IES-1	Diesel fuel storage tank (8,000-gallon capacity)
IES-A1	Leachate pond (914,000-gallon capacity, 30,000 square feet of surface area)
IES-A2	Above ground used oil storage tank (1,000-gallon capacity)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows: http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide.

Summary of Changes to Permit

The following changes were made to the Cumberland Co – Ann Street Landfill, Air Permit No. 08846T09:

Page No.	Section	Description of Changes
Cover and Throughout	Cover and Throughout	• Updated permit revision numbers and dates throughout. • Updated PSD increment tracking statement.
Attachment to Cover	Attachment to Cover	• Removed portable shredder (ID No. IES-Shredder) since it is no longer on site. • Added 8,000-gallon diesel fuel storage tank as ID No. IES-1.
3	1 (Table)	• Updated regulatory citations for the landfills (ID Nos. ES-1 and ES-3) to indicate applicability of NSPS Subpart XXX and 40 CFR 61, Subpart M. • Removed rock crusher and screen (ID Nos. ES-4 and ES-5) as permitted sources at facility's request.
4	2.1 A. (Table)	• Updated regulatory citations for NMOC control requirements. • Inserted row for asbestos and 40 CFR 61, Subpart M. • Updated standards for HAPs to include requirement to comply with NSPS Subpart WWW requirements.
4	2.1 A.1.c.	Specified that no reporting is required when firing landfill gas in the flare.
5-15	2.1 A.3.	Removed NSPS Subpart WWW conditions and inserted NSPS Subpart XXX conditions.
15-16	2.1 A.4.	Inserted 15A NCAC 02D .1110 conditions for 40 CFR 61, Subpart M for asbestos.
17-24	2.1.A.5.	Updated permit conditions for MACT Subpart AAAA to include specific conditions for compliance with NSPS Subpart WWW.
24	2.1 B.	Removed permit section associated with the rock crusher and screen and replaced with a "Reserved" section.
24	2.2	Removed rock crusher and screen as subject sources.

State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
08846T10	08846T09	MONTH XX, 2020	December 31, 2021

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Cumberland Co – Ann Street Landfill**
Facility ID: **2600161**

Facility Site Location: **698 Ann Street**
City, County, State, Zip: **Fayetteville, Cumberland County, North Carolina, 28301**

Mailing Address: **698 Ann Street**
City, State, Zip: **Fayetteville, North Carolina, 28301**

Application Number: **2600161.17A**
Complete Application Date: **November 29, 2017**

Primary SIC Code: **4953**
Division of Air Quality, Regional Office Address: **Fayetteville Regional Office**
Systel Building
225 Green Street, Suite 714
Fayetteville, North Carolina, 28301

Permit issued this the XXth day of MONTH, 20XX

_____
William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
4-24	ES-1 **NSPS WWW,** **MACT AAAA,** **40 CFR 61 Subpart M**	Municipal Solid Waste Landfill (closed portion)	CD-GCCS1	One landfill gas collection and control system
			CD-2	One landfill gas-fired candlestick-type flare (2,500 scfm gas flow rate)
	ES-3 **NSPS WWW,** **MACT AAAA,** **40 CFR 61 Subpart M**	Municipal Solid Waste Landfill (active portion)	CD-GasTreatment	One landfill gas treatment system that compresses the landfill gas, filters it, and dewaters (refrigeration) it prior to offsite sale

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Source(s) and Control Device(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Municipal solid waste landfill (ID Nos. ES-1 and ES-3) with associated landfill gas collection system (ID No. CD-GCCS1) including one gas treatment system (ID No. CD-GasTreatment), and one candlestick-type flare (ID No. CD-2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Nonmethane Organic Compounds (NMOC)	Route all the collected gas to a control system that complies with the following requirement: An open flare designed and operated in accordance with §60.18 except as noted in §60.764(e); A control system designed and operated to reduce NMOC by 98 weight-percent or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen; or Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use.	15A NCAC 02D .0524 40 CFR Part 60, Subpart XXX
Asbestos	Waste disposal management practices	15A NCAC 02D .1110 40 CFR 61, Subpart M
Hazardous Air Pollutants	Work practice standards & startup, shutdown, and malfunction plan Compliance with requirements of 40 CFR 60, Subpart WWW	15A NCAC 02D .1111 40 CFR Part 63, Subpart AAAA
Odorous emissions	Apply suitable odor control measures (see section 2.2 A.1.) **[State-enforceable only]**	15A NCAC 02D .1806

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the flare **(ID No. CD-2)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f) and 15A NCAC 02D .2601]

c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of landfill gas in the flare **(ID No. CD-2)**.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the flare **(ID No. CD-2)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

Testing [15A NCAC 02D .0501(c)(8)]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .0501(c)(8) and General Condition JJ located in Section 3. If the results of this test are above the limit given in Section 2.1 A.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of landfill gas in the flare **(ID No. CD-2)**.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60, Subpart XXX – Municipal Solid Waste Landfills)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart XXX, including Subpart A "General Provisions."[15A NCAC 02D .0524]
   i. The Permittee shall comply with the NSPS WWW standards enumerated in Sections 2.1 A.5.f. through cc. through **April 9, 2020**.
   ii. The Permittee shall be subject to the requirements of this Section starting **April 10, 2020**. Note that the requirements of this standard may require actions to be taken by the Permittee prior to **April 10, 2020**.

Standards for Air Emissions from Municipal Solid Waste Landfills [40 CFR 60.762]

b. The facility's collection and control system that captures the gas generated within the landfill shall meet the following requirements:
   i. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;
   ii. Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:
      (A) 5 years or more if active; or
      (B) 2 years or more if closed or at final grade.
   iii. Collect gas at a sufficient extraction rate;
   iv. Be designed to minimize off-site migration of subsurface gas.

c. The Permittee shall collect gas from the landfill **(ID No. ES-01)** to a control system **(ID No. CD-GCCS1)** that routes all the collected gas to one of the following:
   i. The landfill gas-fired flare **(ID No. CD-2)**. The flare must be designed and operated in accordance with §60.18 except as noted in §60.764(e);
   ii. A control system designed and operated to reduce NMOC by 98 weight-percent. The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.764(d).
   iii. Route the collected gas to a treatment system **(ID No. CD-Treatment)** that processes the collected gas for subsequent sale or beneficial use. The Permittee shall not vent treated landfill gas to the ambient air. If treated landfill gas cannot be routed for subsequent sale or beneficial use, it shall be controlled according to paragraphs c.i or c.ii above.

d. Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765 and 60.766.

e. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
   i. The landfill is a closed landfill. Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under §60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A closure report shall be submitted to the DAQ as provided in A.3.cc. of this section;
   ii. The collection and control system shall have been in operation a minimum of 15 years or the Permittee demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow; and
   iii. Following the procedures specified in §60.764(b), the calculated NMOC gas produced by the landfill shall be less than 34 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

Operational Standards for Collection and Control Systems [40 CFR 60.763]

f. The Permittee shall operate the collection and control system **(ID Nos. CD-GCCS1, CD-Treatment, and CD-2)** in accordance with the following standards:
   i. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active, or 2 years or more if closed or at final grade.
   ii. Operate the collection system with negative pressure at each wellhead except under the following conditions:
      (A) A fire or increased well temperature. The Permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in A.3.z.i of this section;
      (B) Use of a geomembrane or synthetic cover. The Permittee shall develop acceptable pressure limits in the design plan;
      (C) A decommissioned well. A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by DAQ.
   iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C. The Permittee may establish a higher operating temperature value at a particular well via a demonstration submitted to the DAQ Regional Office for approval. A higher operating value demonstration shall include supporting data showing that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
   iv. Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill using an organic vapor analyzer, flame ionization detector or other portable monitor meeting the specifications of A.3.j. To determine if this level is exceeded, the facility shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
   v. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with A.3.c of this section. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and
   vi. Operate the control or treatment system at all times when the collected gas is routed to the system.
   vii. If monitoring demonstrates that the operational requirements in paragraphs ii, iii or iv above are not met, corrective action shall be taken as specified in A.3.g.iii and A.3.g.iv or A.3.i of this section. If corrective actions are taken as specified in the compliance provisions specified in A.3.g through k, the monitored exceedance is not a violation of the operational requirements in this section.

Compliance Provisions [40 CFR 60.765]

g. Unless the facility's collection and control system design include any alternatives to the monitoring provisions approved by the DAQ as provided in §60.767(c)(2), the following methods shall be used to determine whether the gas collection system is in compliance with A.3.b of this section.

i. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with A.3.b.i of this section, the following equation shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the DAQ. If k has been determined by Tier 3 testing as specified in §60.764(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(A) For sites with known year-to year solid waste acceptance rate:

$$Q_m = \sum_{i-1}^{n} 2kL_o M_i (e^{-kt} i)$$

where, Q_M = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years

(B) The Permittee may use actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with the above equation. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equation above or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

ii. For the purposes of determining sufficient density of gas collectors for compliance with A.3.b.ii of this section, the Permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the DAQ, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

iii. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with A.3.b.iii, the Permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under A.3.f.ii of this section. Any attempted corrective action shall not cause exceedances of other operational or performance standards.

(A) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the Permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured.

(B) If corrective actions cannot be fully implemented within 60 days, the Permittee shall conduct a corrective action plan analysis, and develop an implementation schedule to complete the corrective actions as soon as practicable, but no more than 120 days following the positive pressure measurement.

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the Permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ according to A.3.ff.

iv. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the Permittee shall monitor each well monthly for temperature as provided in A.3.f.iii of this section. If a well exceeds the operating parameter for temperature, action shall be initiated to correct the exceedance within 5 calendar days. Any attempted corrective action shall not cause exceedances of other operational or performance standards.

(A) If correction of the temperature exceedance cannot be achieved within 15 calendar days of the first measurement, the Permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after the temperature exceedance was first measured.

(B) If corrective actions cannot be fully implemented within 60 days, the Permittee shall conduct a corrective action plan analysis, and develop an implementation schedule to complete the corrective actions as soon as practicable, but no more than 120 days following the measurement of the temperature exceedance.

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the Permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ according to A.3.ff.

v. The Permittee may establish a higher operating temperature value at a particular well provided that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens as described in A.3.f.iii of this section. An alternative operating value, a parameter, and the well ID(s) along with supporting data shall be submitted to the DAQ Regional Office for approval.

vi. The Permittee seeking to demonstrate compliance with A.3.b.iv of this section through the use of a collection system not conforming to the specification provided in §60.769 shall provide information satisfactory to the DAQ as specified in §60.767(c)(3) demonstrating that off-site migration is being controlled.

h. For purposes of compliance with A.3.f.i of this section, the Permittee shall place each well or design component as specified in the approved design plan as provided in §60.767(c). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

i. 5 years or more if active; or

ii. 2 years or more if closed or at final grade.

i. The following procedures shall be used for compliance with the surface methane operational standard as provided in A.3.f.iv of this section.

i. The Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in A.3.j of this section.

ii. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

iii. Surface emission monitoring shall be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

iv. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in the following paragraphs, (A) through (E), shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of A.3.f.iv.

(A) The location of each monitored exceedance shall be marked, and the location recorded.

(B) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(C) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken, and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (E) below shall be taken, and no further monitoring of that location is required until the action specified in paragraph (E) below has been taken.

(D) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (B) or (C) above shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (C) or (E) of this section shall be taken.

(E) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation shall be submitted to the DAQ for approval.

v. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

j. The Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
   i. The portable analyzer shall meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that "methane" shall replace all references to VOC.
   ii. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
   iii. To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part shall be used.
   iv. The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

k. The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, the Permittee shall comply with the work practice specified in A.3.f.v in lieu of the compliance provisions in A.3.g through j of this section.

Test Methods and Procedures [15A NCAC 02D .0524, 40 CFR 60.764]

l. When testing is required, the testing shall be performed in accordance with §60.764 and General Condition JJ located in Section 3 of this permit. Additionally, the Permittee shall submit results of performance tests to the EPA following the procedures specified in A.3.ee.i. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these requirements are not met.
   i. The following initial performance test shall be conducted for the flare **(ID No. CD-2)**:
      (A) Within 60 days after achieving the maximum production rate at which the flare will be operated, but not later than 180 days after initial startup, an initial performance test shall be conducted, and a written report of the results submitted, by verifying that the flare is designed and operated in accordance with §60.18.

Monitoring Requirements [40 CFR 60.766]

Unless the facility's collection and control system design include any alternatives to the monitoring provisions approved by the DAQ as provided in §60.767(c)(2), the facility must meet the monitoring requirements as described in paragraphs m through q below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these monitoring requirements are not met.

m. The Permittee shall monitor the following parameters at each wellhead:
   i. Measure the gauge pressure in the gas collection header on a monthly basis as provided in A.3.g.iii of this section;
   ii. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:
      (A) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established by DAQ under §60.767(c)(2).
      (B) Unless an alternative test method is approved by DAQ under §60.767(c)(2), the oxygen level shall be determined by an oxygen meter using Method 3A, 3C or ASTM D6522-11 (if sample location is prior to combustion) except that:
         (1) The span shall be set between 10 and 12 percent oxygen;
         (2) A data recorder is not required;
         (3) Only two calibration gases are required, a zero and span;
         (4) A calibration error check is not required;
         (5) The allowable sample bias, zero drift, and calibration drift are ±10 percent.
      (C) A portable gas composition analyzer may be used to monitor oxygen levels provided:
         (1) The analyzer is calibrated; and
         (2) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11.
   iii. Monitor temperature of the landfill gas on a monthly basis as provided in A.3.g.iv, using a temperature measuring device that has been calibrated annually using the procedure in section 10.3 of Method 2 of appendix A-1 of this part; and

n. The Permittee shall install, calibrate, maintain, and operate according to the manufacture's specifications the following equipment when using an open flare **(ID No. CD-2)**:
   i. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
   ii A device that records flow to or bypass of the flare. The Permittee shall:

(A) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and
(B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

o. The Permittee shall maintain and operate all monitoring systems associated with the treatment system **(ID No. CD-Treatment)** according to the site-specific monitoring plan required in A.3.t.iii of this section, and shall install, calibrate, maintain, and operate according to the manufacture's specifications the following equipment when using a landfill gas treatment system:
i A device that records flow to or bypass of the treatment system. The Permittee shall:
(A) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and
(B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

p. The Permittee shall monitor surface concentrations of methane according to the procedures in A.3.i and instrument specifications and procedure provided in A.3.j of this section. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

q. The monitoring requirements of A.3.n and A.3.o of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.
i. A monitoring system malfunction shall be defined as any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures caused in part by poor maintenance or careless operation are not malfunctions.
ii. The Permittee shall complete monitoring system repairs in response to monitoring system malfunctions and return the monitoring system to operation as expeditiously as practicable.

Site Specific Requirements [40 CFR 60.766(e)]

r. Each owner or operator seeking to install a collection system that does not meet the active collection system specifications in 40 CFR §60.769, or seeking to monitor alternative parameters to those required by §§60.763 through 60.766, shall provide information satisfactory to the EPA as provided in §60.767(c)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The following alternative operating parameters have been approved:
i. Operate the collection and control system with a pressure at each well head of up to 5 inches of water column in areas that have a geomembrane or synthetic cover. [40 CFR §60.763(b)(2)]
ii. When applicable, the Permittee may use an EPA approved on-site multi-gas analyzer, in lieu of a laboratory method, for determining the oxygen content of the landfill gas at each well and monitoring point.
iii. If the gas collection and control system does not contain any bypasses of the flare, the requirement to record flow of bypass of the flare is not applicable.
iv. The Permittee may use USEPA Method 3C or ASTM D3588 in place of Method 18 and ASTM D1946 to determine landfill gas components for calculating net heating value under 60.18(c)(3).

Recordkeeping Requirements [40 CFR 60.768]
Unless the facility's collection and control system design include any alternatives to the recordkeeping provisions approved by the DAQ as provided in §60.767(c)(2), the facility must meet the recordkeeping requirements as described in paragraphs s through y below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these recordkeeping requirements are not met.

s. The Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered the standard of 2.5 million megagrams and 2.5 million cubic meters, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

t. The Permittee shall keep up-to-date, readily accessible records for the life of the control system equipment of the data listed below in this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.
   i. In order to demonstrate compliance with paragraph A.3.b through use of a gas collection and control system:
      (A) The maximum expected gas generation flow rate as calculated in A.3.g.i of this section. The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the DAQ.
      (B) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.769(a)(1).
   ii. In order to demonstrate compliance with paragraph A.3.c through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.
   iii. In order to demonstrate compliance with paragraph A.3.c through use of a landfill gas treatment system:
      (A) Records of the flow of landfill gas to, and bypass of, the treatment system;
      (B) A site-specific treatment monitoring plan, to include:
         (1) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records shall include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas;
         (2) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas;
         (3) Documentation of the monitoring methods and ranges, along with justification for their use;
         (4) Identify person responsible (by job title) for data collection;
         (5) Processes and methods used to collect the necessary data; and
         (6) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

u. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in paragraphs A.3.m through A.3.r as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
   i. The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified in A.3.n and A.3.o of this section.
   ii. The Permittee using an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified in A.3.n of this section, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
   iii. The permittee shall keep records of periods when the collection system or control device is not operating.

v. The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
   i. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified in A.3.h of this section.
   ii. Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in §60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.769(a)(3)(ii).

w. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of the following:
   i. All collection and control system exceedances of the operational standards in A.3.f of this section, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
   ii. Each wellhead temperature monitoring value of 55ºC or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.
   iii. For any root cause analysis for which corrective actions are required in A.3.g.iii.(A) or A.3.g.iv.(A) of this section, keep a record of the root cause analysis conducted, including a description of the recommended corrective actions taken, and the dates the corrective actions were completed.
   iv. For any root cause analysis for which corrective actions are required in A.3.g.iii.(B) or A.3.g.iv.(B) of this section, keep a record of the root cause analysis conducted, the corrective action analysis, the dates for corrective actions already completed following the positive pressure reading or high temperature reading, and a schedule for implementation for any corrective actions not already completed, including proposed commencement and completion dates.
   v. For any root cause analysis for which corrective actions are required in A.3.g.iii.(C) or A.3.g.iv.(C) of this section, keep a record of the root cause analysis conducted, the corrective action analysis, the dates for corrective actions already completed following the positive pressure reading or high temperature reading, a schedule for implementation for any corrective actions not already completed, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the DAQ.

x. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control monitoring data from A.3.m of this section.

y. For any leachate or other liquids addition reported under A.3.gg of this section, the Permittee shall keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

Reporting Requirements [40 CFR 60.767]

z. The Permittee shall submit to DAQ annual reports of the recorded information listed below:
   i. Value and length of time for exceedance of applicable parameters monitored in A.3.n and A.3.o of this section.
   ii. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified in A.3.n and A.3.o of this section.
   iii. Description and duration of all periods when the control device was not operating, and length of time the control device was not operating.
   iv. All periods when the collection system was not operating.
   v. The location of each exceedance of the 500 parts per million methane concentration and the concentration recorded at each location for which an exceedance was recorded in the previous month.
      (A) The Permittee shall determine the latitude and longitude coordinates for the location, in decimal degrees with at least 5 decimal places, using an instrument with an accuracy of at least 4 meters.
   vi. The date of installation and the location of each well or collection system expansion added in accordance with A.3.g.iii, A.3.g.iv, A.3.h and A.3.i.iv of this section.
   vii. For any corrective action analysis for which corrective actions are required in A.3.g.iii and iv, and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective actions, the dates for corrective actions already completed following the positive pressure reading, and, for actions not already completed, a schedule for implementation, including proposed commencement and completion dates.

viii. Summary of all DAQ approved well closures that have been decommissioned in accordance with wells A.3.f.ii(C) of this section.
ix. Summary of all DAQ approved nonproductive areas of the landfill in accordance with §60.769(a)(3)(ii).
x. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under §60.8.

aa. The Permittee shall submit a collection and control system design plan to DAQ for approval according to the schedule in §60.767(c)(4). The collection and control system design plan must be prepared and approved by a Professional Engineer and must meet the following requirements:
i. The collection and control system as described in the design plan shall meet the design requirements in §60.762(b)(2).
ii. The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the Permittee.
iii. The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to DAQ's satisfaction of the sufficiency of the alternative provisions to §60.769.
iv. The Permittee must notify DAQ that the design plan is completed and submit a copy of the plan's signature page. If DAQ chooses to review the plan, the approval process will continue as described in paragraph v. below. However if DAQ indicates that submission is not required or does not respond within 90 days, the Permittee can continue to implement the plan with the recognition that the Permittee is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the Permittee must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.
v. Upon receipt of an initial or revised design plan, DAQ must review the information submitted under paragraphs i. through iii. above and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. If DAQ does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the Permittee may continue with implementation of the design plan, recognizing they would be proceeding at their own risk.
vi. If the Permittee chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the Permittee shall prepare a site-specific treatment system monitoring plan as specified in paragraph A.3.t.iii.(B).

bb. The Permittee shall submit a revised design plan to the DAQ for approval as follows:
i. At least 90 days before expanding operations to an area not covered by the previously approved design plan;
ii. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the DAQ according to §60.767(c).

cc. The Permittee shall submit a closure report to the DAQ within 30 days of waste acceptance cessation. The DAQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the DAQ, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

dd. The Permittee shall submit an equipment removal report to the DAQ 30 days prior to removal or cessation of operation of the control equipment.
i. The equipment removal report shall contain all of the following items:
(A) A copy of the closure report submitted in accordance with paragraph cc. of this section;
(B) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process units tested, the pollutants tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's Central Data Exchange (CDX); and

(C) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

ii. The DAQ may request such additional information as may be necessary to verify that all of the conditions for removal in A.3.e have been met.

ee. The Permittee shall submit reports to the EPA electronically via according to §60.767(i)(1) and (2):

i. Within 60 days after the date of completing each performance test (as defined in §60.8), the Permittee shall submit the results of each performance test according to the following procedures:

(A) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (https://www3.epa.gov/ttn/chief/ert/ert_info.html) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If some of the performance test information being submitted is claimed as confidential business information (CBI), the Permittee shall follow the procedure in §60.767(i)(1)(i) for submittal.

(B) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §60.4.

ii. The Permittee shall submit reports as required by this subpart to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/index.html). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for 90 calendar days, the Permittee shall begin submitting all subsequent reports via CEDRI. The reports shall be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

ff. The Permittee shall submit, according to A.3.g.iii(C) and iv.(C), the following.

i. For corrective action that is required according to A.3.g.iii(C) or iv.(C) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ Regional Office as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 ºC (131 ºF). DAQ must approve the plan for corrective action and the corresponding timeline.

ii. For corrective action that is required according to A.3.g.iii(C) or iv.(C) and is not completed within 60 days after the initial exceedance, you must submit a notification to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

gg. For affected landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that have employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years, the Permittee shall submit to the Administrator annually, following the procedure specified in paragraph ee.ii of this section, the following information:

i. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

ii. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

iii. Surface area (acres) over which the leachate is recirculated (or otherwise applied).

iv. Surface area (acres) over which any other liquids are applied.

v. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

vi. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

vii. The initial report must contain items in paragraphs gg.i through vi of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than:
(A) September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016 containing data for the first 12 months after August 29, 2016; or
(B) Thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016 containing data for the first 12 months after August 29, 2016.

viii. Subsequent annual reports must contain items in paragraphs gg.i through vi of this section for the 365-day period following the 365-day period included in the previous annual report, and the report must be submitted no later than 365 days after the date the previous report was submitted.

ix. Landfills may cease annual reporting of items in paragraphs gg.i through vii of this section once they have submitted the closure report in paragraph cc. of this section.

hh. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .1110: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (40 CFR 61, Subpart M – Asbestos)

The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1110 "National Emission Standards for Hazardous Pollutants" as promulgated in 40 CFR Part 61, Subpart M "National Emission Standard for Asbestos", including Subpart A "General Provisions."

Applicability [40 CFR 61.140 and 61.141]

a. Municipal Solid Waste Landfills are subject to this provision if the source is considered active waste disposal site. The site is considered active if asbestos-containing waste material has been deposited within the past year.

Testing [15A NCAC 02Q .0508(f)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this testing are above the applicable limits in 40 CFR 61.154, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1110.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f), 40 CFR 61.154]

d. The Permittee shall comply with at least one of the following:
i. Ensure that there are no visible emissions from any active waste disposal site; OR
ii. Use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in §61.149(c)(2); OR
iii. at the end of each operating day (or at least once every 24-hour period while the site is in continuous operation), the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:
(A) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material; OR
(B) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

e. If the Permittee uses an option other than Paragraph d.iii, above, the Permittee shall install signs and barriers that meet the requirements of §61.154(b).

f. For all asbestos-containing waste material received, the Permittee shall:
i. Maintain waste shipment records, using a form similar to that shown in Figure 4 of Subpart M, and include the following information:
(A) The name, address, and telephone number of the waste generator.
(B) The name, address, and telephone number of the transporter(s).

(C) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
(D) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
(E) The date of the receipt.

ii. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
iii. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
iv. Retain a copy of all records and reports required by this paragraph for at least 2 years.

g. The Permittee shall maintain records of the location, depth and area and quantity in cubic meters (or cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area until closure of the landfill.

h. Upon closure, the Permittee shall:
i. Comply with all the provisions of §61.151; AND
ii. Submit a copy of records of asbestos waste disposal locations and quantities.

If the Permittee does not comply with the monitoring and recordkeeping requirements in Paragraphs d. through h., above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1110.

Reporting [15A NCAC 02Q .0508(f), 40 CFR 61.154(i) and (j)]

i. Upon request, the Permittee shall provide all records required under this subpart and make available during normal business hours for inspection by the DAQ.

j. The Permittee shall notify the DAQ Regional Office in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the DAQ at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
i. Scheduled starting and completion dates.
ii. Reason for disturbing the waste.
iii. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.
iv. Location of any temporary storage site and the final disposal site.

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR 63, Subpart AAAA – Municipal Solid Waste Landfills)

a. For all sources located at this facility, the Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart AAAA, "National Emission Standards for Hazardous Air Pollutants, Municipal Solid Waste Landfills," including Subpart A, "General Provisions." [40 CFR 63.1935]

b. Compliance is determined in the same way it is determined for 40 CFR part 60, Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(c)(1) and (d) of Subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, the Permittee has failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, the Permittee must develop a written Startup, Shutdown and Malfunction (SSM) plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart. [40 CFR 63.1960]

c. For the purposes of the landfill monitoring and SSM plan requirements, a deviation occurs when a SSM plan is not developed or maintained on site. [40 CFR 63.1965]

Operation and Maintenance Requirements [40 CFR 63.6(e)]

d. At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to DAQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in 40 CFR 63.6(e)(3)), review of operation and maintenance records, and inspection of the source. [40 CFR 63.6(e)]

e. Startup, Shutdown, and Malfunction Plan [40 CFR 63.6(e)(3)]:
   i. The Permittee must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to:
      (A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph d above.
      (B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
      (C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

ii. When actions taken by the Permittee during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the Permittee must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the Permittee must keep records of these events as specified in 40 CFR 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the Permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual startup, shutdown, and malfunction report required in §63.10(d)(5). [40 CFR 63.6(e)(3)(iii)]

iii. If an action taken by the Permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the Permittee must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with §63.10(d)(5) unless the owner or operator makes alternative reporting arrangements, in advance, with the DAQ. [40 CFR 63.6(e)(3)(iv)]

iv. The Permittee must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the DAQ. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in 40 CFR 63.6(e)(3)(viii), the Permittee must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the DAQ for a period of 5 years after revision of the plan. [40 CFR 63.6(e)(3)(v)]

Standards for Air Emissions from Municipal Solid Waste Landfills [40 CFR 60.752]

f. The facility's collection and control system that captures the gas generated within the landfill shall meet the following requirements:
   i. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;
   ii. Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:
      (A) 5 years or more if active; or
      (B) 2 years or more if closed or at final grade.
   iii. Collect gas at a sufficient extraction rate;
   iv. Be designed to minimize off-site migration of subsurface gas.

g. The Permittee shall collect gas from the landfill **(ID No. ES-01)** to a control system **(ID No. CD-GCCS1)** that routes all the collected gas to one of the following:
   i. The landfill gas-fired flare **(ID No. CD-2).** The flare must be designed and operated in accordance with §60.18 except as noted in §60.754(e).
   ii. A control system designed and operated to reduce NMOC by 98 weight-percent. The control device **(ID No. CD-2)** shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.754(d).
   iii. Route the collected gas to a treatment system **(CD-Treatment)** that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraphs i or ii above.

h. Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.753, 60.755 and 60.756.

Operational Standards for Collection and Control Systems [40 CFR 60.753]

i. The Permittee shall operate the collection and control system **(ID Nos. CD-GCCS1, CD-Treatment, and CD-2)** in accordance with the following standards:
   i. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active, or 2 years or more if closed or at final grade.
   ii. Operate the collection system with negative pressure at each wellhead except under the following conditions:
      (A) A fire or increased well temperature. The Permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in A.5.aa.i of this section;
      (B) Use of a geomembrane or synthetic cover. The Permittee shall develop acceptable pressure limits in the design plan;
      (C) A decommissioned well. A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the DAQ.
   iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The facility may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
      (A) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established by DAQ under §60.752(b)(2)(i).
      (B) Unless an alternative test method is approved by DAQ under §60.752(b)(2)(i), the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:
         (1) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;
         (2) A data recorder is not required;
         (3) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
         (4) A calibration error check is not required; or
         (5) The allowable sample bias, zero drift, and calibration drift are ±10 percent.
   iv. Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the facility shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
   v. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with A.5.g of this section. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and
   vi. Operate the control or treatment system at all times when the collected gas is routed to the system.
   vii. If monitoring demonstrates that the operational requirements in ii, iii or iv above are not met, corrective action shall be taken as specified in A.5.k.iii through v or A.5.g of this section. If corrective actions are taken as specified in the compliance provisions specified in A.5.k through o, the monitored exceedance is not a violation of the operational requirements in this section.

Test Methods and Procedures [15A NCAC 02D .0524, 40 CFR 60.754]

j. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 02D .0524, 40 CFR 60.754 and General Condition JJ. If the results of this test are above the limits given in 40 CFR Part 60, Subpart WWW, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.
   i. The following initial performance test shall be conducted for the flare **(ID No. CD-2)**:
      (A) Within 60 days after achieving the maximum production rate at which the flare will be operated, but not later than 180 days after initial startup, an initial performance test shall be conducted, and a written report of the results submitted, by verifying that the flare is designed and operated in accordance with §60.18.

Compliance Provisions [40 CFR 60.755]

k. Unless the facility's collection and control system design include any alternatives to the monitoring provisions approved by the DAQ as provided in §60.752(b)(2)(i)(B), the following methods shall be used to determine whether the gas collection system is in compliance with A.5.f of this section.

i. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with A.5.f.i of this section, the following equation shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the DAQ. If k has been determined by Tier 3 testing as specified in §60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(A) For sites with known year-to year solid waste acceptance rate:

$$Q_m = \sum_{i-1}^{n} 2kL_oM_i(e^{-kt}i)$$

where, Q_M = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years

(B) The Permittee may use actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with the above equation. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equation above or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

ii. For the purposes of determining sufficient density of gas collectors for compliance with A.5.f.ii of this section, the Permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the DAQ, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

iii. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with A.5.f.iii, the Permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under A.5.i.ii of this section. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance shall be submitted to the DAQ Regional Office for approval.

iv. The Permittee is not required to expand the system as required in paragraph iii above during the first 180 days after gas collection system startup.

v. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the Permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in A.5.i.iii of this section. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance shall be submitted to the DAQ Regional Office for approval.

vi. The Permittee seeking to demonstrate compliance with A.5.f.iv of this section through the use of a collection system not conforming to the specification provided in §60.759 shall provide information satisfactory to the DAQ as specified in §60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

l. For purposes of compliance with A.5.i.i of this section, the Permittee shall place each well or design component as specified in the approved design plan as provided in §60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:
   i. 5 years or more if active; or
   ii. 2 years or more if closed or at final grade.

m. The following procedures shall be used for compliance the surface methane operational standard as provided in A.5.i.iv of this section.
   i. The Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in A.5.n of this section.
   ii. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
   iii. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
   iv. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in the following paragraphs (A) through (E) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of A.5.i.iv.
      (A) The location of each monitored exceedance shall be marked, and the location recorded.
      (B) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.
      (C) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken, and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (E) below shall be taken, and no further monitoring of that location is required until the action specified in paragraph (E) below has been taken.
      (D) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (B) or (C) above shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (C) or (E) of this section shall be taken.
      (E) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation shall be submitted to the DAQ for approval.
   v. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

n. The Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
   i. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that "methane" shall replace all references to VOC.
   ii. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
   iii. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.
   iv. The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

o. The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

Monitoring Requirements [40 CFR 60.756]
Unless the facility's collection and control system design include any alternatives to the monitoring provisions approved by the DAQ as provided in §60.752(b)(2)(i)(B), the facility must meet the monitoring requirements as described in paragraphs p through s below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these monitoring requirements are not met.

p. The Permittee, seeking to comply with A.5.f for an active gas collection system, shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
   i. Measure the gauge pressure in the gas collection header on a monthly basis as provided in A.5.k.iii of this section;
   ii. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in A.5.k.v of this section;
   iii. Monitor temperature of the landfill gas on a monthly basis as provided in A.5.k.v; and
   iv. Monitor surface concentrations of methane along the entire perimeter of the collection area (or site-specific established spacing) for each collection area on a quarterly basis.

q. The Permittee shall calibrate, maintain, and operate according to the manufacture's recommendations the following equipment when using an open flare:
   i. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
   ii. A device that records flow to or bypass of the flare. The owner or operator shall either:
      (A) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
      (B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

r. Each owner or operator seeking to install a collection system that does not meet the active collection system specifications in 40 CFR §60.759, or seeking to monitor alternative parameters to those required by 40 CFR §60.753 through §60.756, shall provide information satisfactory to the EPA as provided in §60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures.

s. The Permittee shall monitor surface concentrations of methane according to the instrument specifications and procedure provided in A.5.n of this section. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

Site Specific Requirements [40 CFR 60.756(e)]
t. Each owner or operator seeking to install a collection system that does not meet the specifications in §60.759 or seeking to monitor alternative parameters to those required by §60.753 through §60.756 shall provide information satisfactory to the Administrator as provided in §60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The following alternative operating parameters have been approved:
   i. Operate the collection and control system with a pressure at each well head of up to 5 inches of water column in areas that have a geomembrane or synthetic cover. [40 CFR §60.753(b)(2)]
   ii. When applicable, the Permittee may use an EPA approved on-site multi-gas analyzer, in lieu of a laboratory method, for determining the oxygen content of the landfill gas at each well and monitoring point.
   iii. If the gas collection and control system does not contain any bypasses of the flare, the requirement to record flow of bypass of the flare is not applicable.
   iv. The Permittee may use USEPA Method 3C or ASTM D3588 in place of Method 18 and ASTM D1946 to determine landfill gas components for calculating net heating value under 60.18(c)(3).

Recordkeeping Requirements [40 CFR 60.758, 40 CFR 63.1980]
Unless the facility's collection and control system design include any alternatives to the recordkeeping provisions approved by the DAQ as provided in §60.752(b)(2)(i)(B), the facility must meet the recordkeeping requirements as described in paragraphs u through z below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these recordkeeping requirements are not met.

u. The Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered the standard of 2.5 million megagrams and 2.5 million cubic meters, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

v. The Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed below in this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.
   i. In order to demonstrate compliance with §60.752(b)(2)(ii) through use of gas collection and control system:
      (A) The maximum expected gas generation flow rate as calculated in A.5.k.i of this section. The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the DAQ.
      (B) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.759(a)(1).
   ii. In order to demonstrate compliance with A.5.g.i through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

w. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in paragraphs A.5.p through A.5.t as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
   i. The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified in A.5.q of this section.
   ii. The Permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified in A.5.q of this section, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

x. The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
   i. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified in A.5.l of this section.
   ii. Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in §60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.759(a)(3)(ii).

y. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in A.5.i of this section, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

z. The Permittee shall keep records as specified in A.5.e. [40 CFR 63.1980(b)]

Reporting Requirements [40 CFR 60.757, 40 CFR 63.1980]

aa. The Permittee shall submit to DAQ, every six months [40 CFR 63.1980(a)], reports of the recorded information listed below.
   i. Value and length of time for exceedance of applicable parameters monitored in A.5.p and A.5.q of this section.
   ii. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified in A.5.p and A.5.q of this section.
   iii. Description and duration of all periods when the control device was not operating for a period exceeding one hour and length of time the control device was not operating.
   iv. All periods when the collection system was not operating in excess of 5 days.
   v. The location of each exceedance of the 500 parts per million methane concentration and the concentration recorded at each location for which an exceedance was recorded in the previous month.
   vi. The date of installation and the location of each well or collection system expansion added in accordance with A.5.k.iii, A.5.l and A.5.m.iv of this section.
   vii. Summary of all DAQ approved well closures that have been decommissioned in accordance with wells A.5.i.ii(C) of this section.
   viii. Summary of all DAQ approved nonproductive areas of the landfill in accordance with §60.759(a)(3)(ii).

bb. The permittee shall submit reports as specified in A.5.e. [40 CFR 63.1980(b)]

cc. The Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. RESERVED

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Municipal solid waste landfill (ID Nos. ES-1 and ES-3) with associated landfill gas collection system (ID No. CD-GCCS1) including one gas treatment system (ID No. CD-GasTreatment), and one candlestick-type flare (ID No. CD-2).

The following table provides a summary of limits and standards for the emission source(s) describe above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odorous emissions	Apply suitable odor control measures **[State-enforceable only]**	15A NCAC 02D .1806

STATE-ENFORCEABLE ONLY

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

2. RESERVED

3. RESERVED

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY
The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]
"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
    a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
        i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
            - name and location of the facility;
            - nature and cause of the malfunction or breakdown;
            - time when the malfunction or breakdown is first observed;
            - expected duration; and
            - estimated rate of emissions;
        ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
        iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
    a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B **Other Requirements under 15A NCAC 02D .0535**
The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]
The Permittee shall be subject to the following provisions with respect to emergencies:
1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
   a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
   b. the permitted facility was at the time being properly operated;
   c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
   d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]
This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:
1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]
1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or
   d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:
1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]
1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

   Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]
The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]
A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History [**15A NCAC 02Q .0507(d)(4)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) –** FEDERALLY-ENFORCEABLE ONLY
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.

3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
        i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
        ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
        iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
    b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
    a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
    b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
    c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
    d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
    a. a description of the change at the facility;
    b. the date on which the change will occur;
    c. any change in emissions; and
    d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound